

***LineUp With Math™* Alignment**  
**Mathematics Curriculum Standards**  
**Content Standards**

**ALGEBRA**

Expectation E. Understand and compare the properties of classes of functions, including exponential, polynomial, rational, logarithmic, and periodic functions.

\*3. Relate direct variation to linear functions and solve problems involving proportional change.

***LineUp With Math™* Activities**

--Use an interactive simulator plus calculation worksheets to apply proportional reasoning to identify and resolve distance, rate, time conflicts in air traffic control.

**Standard III. Use mathematical models to represent and understand quantitative relationships.**

Expectation C. Draw reasonable conclusions about a situation being modeled.

1. Verify and explain the conclusion based on the data and the processes used.

***LineUp With Math™* Activities**

--Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.

--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.

**Standard IV. Analyze change in various contexts.**

Expectation A. Approximate and interpret rates of change from graphical and numerical data.

1. Interpret rates of change as they apply to phenomena such as inflation, spread of disease, population growth, tax brackets, and pollution.

***LineUp With Math™* Activities**

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

--Use an interactive simulator to identify distance, rate, time conflicts in air traffic control problems and resolve the conflicts by varying plane speeds or changing plane routes.

2. Analyze graphical data gathered by technical equipment including combinations of graphs, periodic phenomena, and rates of change.

--Use an interactive simulator to identify distance, rate, time conflicts in air traffic control problems and resolve the conflicts by varying plane speeds or changing plane routes.

3. Determine changes in slope relative to the changes in the independent variable.

--Use an interactive simulator to identify distance, rate, time conflicts in air traffic control problems and resolve the conflicts by varying plane speeds or changing plane routes.